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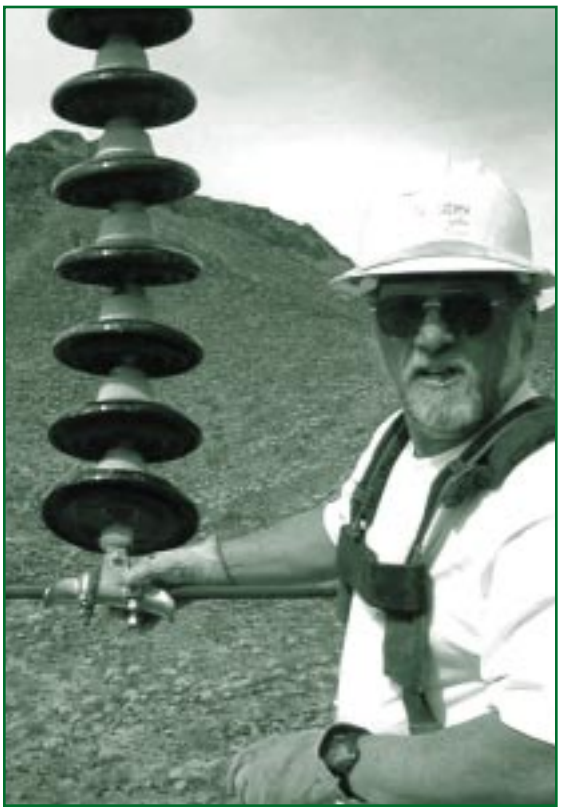
Linemen visit DSW, lend a hand on wood pole replacements



Bob Watson *reattaches a transmission line to an insulator string.*

Story and photos by Melissa Chiechi

While linemen from Western's northern regions have dealt in recent months with the snow and cold of winter, Desert Southwest crews have continued to work on warmer weather pro-jects such as replacing wood poles. Starting last October, DSW crews began a wood pole rehabilitation program for the Parker-Davis transmission system. Since January, eight visiting linemen from Upper Great Plains and Rocky Mountain regions have worked on the project with DSW crews, focusing on the 161-kV Parker-Davis transmission line.

Visiting linemen are part of Western's work toward seasonal diversity. In winter, UGP and RM linemen assist with DSW projects. DSW linemen head north to lend a hand during hotter summer months. "The program is beneficial to all regions involved," said **Dick Bullock,** a DSW line crew foreman, "The linemen learn from each other and take what they learn back to their regions."

Replacing DSW poles has provided a unique educational experience for UGP and RM crews. Not only do they have warm or hot temperatures to worry about, terrain varies throughout the DSW region. **Bob Watson,** a Brush lineman employed at Western for 18 years, described conditions this way: "The terrain changes from pole to pole. We may be working in sand one morning and by afternoon we're trying to dig through large rocks." Pole replacement takes extreme precision and in such terrain, only two to three poles can be replaced in a day, he added.

During a two-week assignment, visiting linemen rotate among three DSW crews to work with a variety of individuals in new situations. "Each crew has a different set of personalities, different ways of doing things," Watson shared. "This program allows us to exchange ideas and gain a new perspective." As work progresses, crews improve processes as well. The program helps linemen later implement the same work in their own region.

As part of Western's goal to maintain reliable power, Western has planned to replace wood poles with steel poles across the service territory in areas that don't already have steel poles. DSW is the leader in implementing this work. With many wood poles beyond their service life, steel pole replacement will reduce costs associated with wood structures. Steel poles are preferable because they blend with the desert landscape; they are also stronger and last much longer.

Linemen level a new steel pole structure on the Parker-Bouse section of the 161-kV line.

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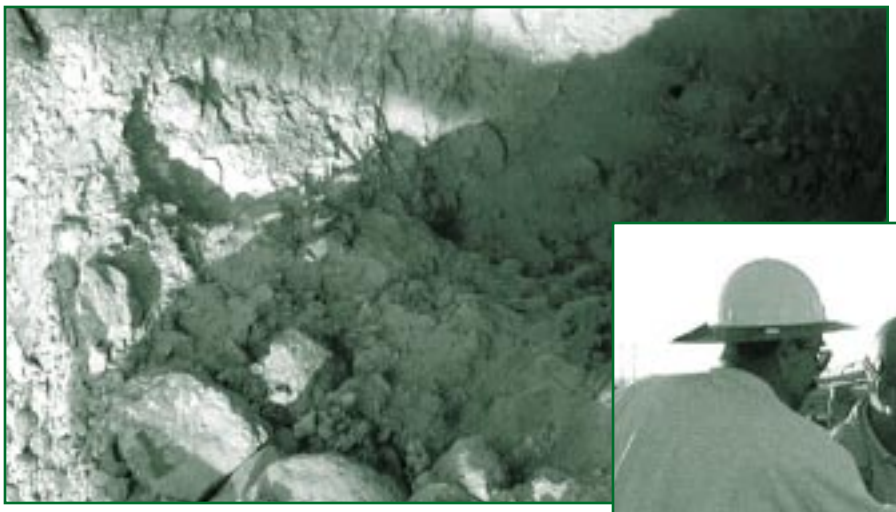
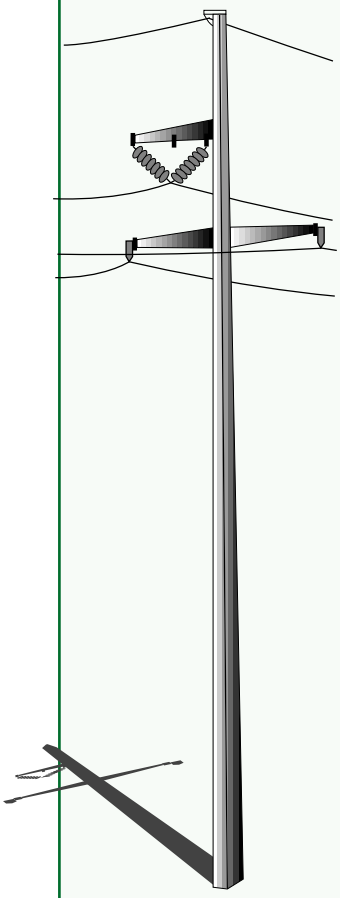


Crews face rocky holes like this one during pole replacement.

DSW Maintenance plans to replace approximately 50 miles of wood-pole line per year with light-duty steel structures.

(Note: Chiechi is a public affairs specialist in Phoenix.)

*DSW crew members **Bill Logan, Donnie Ward** and **Ed Moed** drill an assembly hole in a steel pole.*

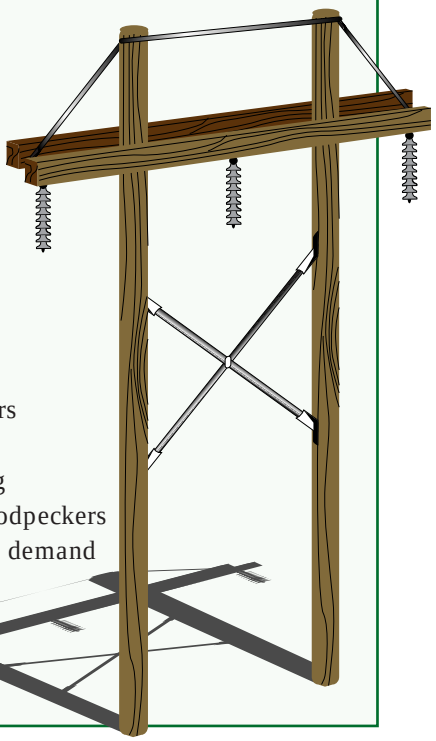


Comparing wood to steel

As part of Western's attempt to maintain reliable power, replacing wood poles with steel ones can benefit all regions. The major disadvantage with steel poles, according to DSW Project Manager **Mark Depoe,** is that steel poles come in two parts and must be laboriously assembled in the field. He said Maintenance is currently working with the manufacturer to have the poles assembled before they are shipped out.

Steel poles

- ✓ Service life of up to 80 years
- ✓ Lighter and stronger
- ✓ No chemical treatment needed
- ✓ Cheaper, including lower shipping costs
- ✓ Need expensive climbing brackets (otherwise bucket trucks must be used)



Wood poles

- ✓ Service life of about 30 to 40 years
- ✓ Heavy and awkward
- ✓ Chemically treated to avoid rotting
- ✓ Susceptible to rot, insects and woodpeckers
- ✓ Relatively expensive and in higher demand
- ✓ Easier to climb than steel poles